

Four antiviral drugs are licensed for treatment and chemoprophylaxis

- Antivirals shorten the course of illness when given within the first 1-2 days of influenza symptoms
- Avoid antivirals in pregnant women unless benefit outweighs risk
- Though usually effective for influenza A, this season amantadine and rimantadine are not recommended in the U.S. due to high levels of resistance

	Amantadine (Symmetrel®)	Rimantadine (Flumadine®)	Oseltamivir (Tamiflu®)	Zanamivir (Relenza®)
Effective for Flu A	Not recommended for 2006-2007 season		Yes	Yes
Effective for Flu B	No	No	Yes	Yes
Mode	Oral	Oral	Oral	Inhaled
Treatment	≥ 1 y.o.	≥ 13 y.o.	≥ 1 y.o.	≥ 7 y.o.
Prophylaxis	≥ 1 y.o.	≥ 1 y.o.	≥ 1 y.o.	≥ 5 y.o.

Priority groups for treatment with antiviral medicines

- Any person with a potentially life-threatening influenza-related illness
- Any person at high risk for serious complications of influenza and who is within the first 2 days of illness onset

Priority groups for chemoprophylaxis with antiviral medicines

- All residents and workers during an institutional outbreak
- All persons at high risk of serious influenza complications if they are exposed to a known or suspected case of influenza

Consider antiviral use in these patients if local supplies are adequate:

Chemoprophylaxis

- Persons in communities where influenza viruses are circulating (influenza outbreak usually lasts 6-8 weeks)
- Persons at high risk of serious complications who cannot get vaccinated. Persons at high risk of serious complications who have been vaccinated but have not had time to mount an immune response to the vaccine. In adults, chemoprophylaxis should occur for 2 weeks after vaccination.
- Persons with immunosuppressive conditions who are not expected to mount an adequate antibody response to influenza vaccine.
- Health-care workers with direct patient care responsibilities who have not been vaccinated

Treatment

- Infected adults and children aged ≥1 year who do not have conditions placing them at high risk for serious complications secondary to influenza infection.

Length of Antiviral Treatment and Chemoprophylaxis

	Treatment Length	Chemoprophylaxis Length		
		After exposure	Institutional outbreak	After vaccine***
Amantadine*	3-5 days**	7 days	Until outbreak over	2 weeks
Rimantadine*				
Oseltamivir	5 days	7 days	Until outbreak over	2 weeks
Zanamivir		N/A	N/A	N/A

*Not recommended 2006-2007 season. **Until afebrile 1-2 days.

*** If antiviral prophylaxis is desired for high-risk individuals during the time immunity is developing.

Pediatric Points

- Children ≤ 9 years old who have never had an influenza vaccine need 2 doses of influenza vaccine, ≥ 1 month apart to be optimally protected. Therefore, if a high-risk child is vaccinated when there is influenza in the community, antiviral prophylaxis may need to be continued for 6 weeks for optimal protection.
- For pediatric antiviral use where no liquid formulation is available, open the capsule or crush the tablet, and give the appropriate dose in cherry syrup.

ANTIVIRAL MEDICINES

Amantadine [100 mg capsule; 50 mg/5 ml syrup]—*not recommended 2006-2007*

- Treatment and prophylaxis (T&P) of influenza A in ≥ 12 months of age.
- Standard dose in adults for both T&P: 100 mg PO twice a day.
- Standard dose in children for T&P: 5 mg/kg/day PO in two divided doses (max of 150 mg/day).
- Side effects: CNS effects (e.g. trouble concentrating, insomnia & lowered seizure threshold, dry mouth, urinary retention).
- Decrease dose to 100 mg Q day
 - CrCl ≤ 50 ml/min
 - Age ≥ 65 years
 - When side effects occur on 100 mg BID

Rimantadine [100 mg tablet; 50 mg/5 ml syrup]—*not recommended 2006-2007*

- Treatment of influenza A in ≥ 13 y.o.
- Prophylaxis of influenza A in ≥ 1 y.o.
- Standard dose in adults: 100 mg PO twice a day (see above table for length)
- Standard dose in children: 5 mg/kg/day PO in two divided doses (max of 150 mg/day).
- Similar but fewer side effects than amantadine
- Decrease dose to 100 mg Q day
 - Nursing home residents
 - Age ≥ 65 years
 - Severe hepatic dysfunction
 - CrCl ≤ 10 ml/min
 - When side effects occur on 100 mg BID

Oseltamivir (Tamiflu®) [75 mg tablet; 60 mg/5 ml suspension]

- Treatment and prophylaxis of influenza A & B in ≥ 12 months old.
- Treatment: 75 mg PO **twice daily** for 5 days.
- Lower dose in children based on weight:
 - ≤ 15 kg, 30 mg BID;
 - >15 -23 kg, 45 mg BID;
 - >23 -40 kg, 60 mg BID;
 - >40 kg, 75 mg PO BID.
- Prophylaxis: 75 mg PO **once daily**
- Side effects: nausea & vomiting; **new FDA precaution (as of 11/06/06) concerning reports of unusual behavior occurring while on oseltamivir (primarily in children) with confusion, delirium, or self-injury**
- Reduce dose to 75 mg every other day when CrCl 10-30 ml/min

Zanamivir (Relenza®) [Inhaler]

- For influenza A & B: Treatment in ages ≥ 7 y.o.; prophylaxis in ages ≥ 5 y.o.
- Inhalation (10 mg) twice daily for 5 days.
- Side effects: Bronchospasm

For more detailed information about each antiviral medication, see:

www.cdc.gov/flu/professionals/treatment/